INFORMATION

• Adolescence is a developmental period typified by high exploration.
• A hallmark of youth is their higher impulsivity, which includes a reduced ability to inhibit behavior and a tendency to act without forethought to behavioral consequences (Moeller et al., 2005).
• Patterns of decision-making are associated with increased health risk behaviors including risky sexual behavior and risk for addiction (Kreek et al., 2005; Robbins & Bryan, 2004).
• Youth with lower alcohol use and lower impulsivity have responded better to motivational interviewing (MI) based interventions (Helstrom et al., 2007).

Lower impulsivity youth are also more likely to take steps toward behavior change following MI (Feldstein Ewing & Bryan, 2009).

It is unknown how impulsivity affects client speech about change, a proposed mechanism of action in MI (Moyers et al., 2009).

Because rates of sexual risk behavior are currently higher in adolescents than adults (Wilson et al., 2010), and are associated with alcohol use (Bryan, Ray & Cooper, 2007), identifying factors that affect treatment outcomes for adolescents could have powerful public health implications.

The purpose of this study was to evaluate how impulsivity relates to adolescent speech about HIV risk in a juvenile-involved sample, with the hypothesis that impulsivity would be negatively related to change talk (CT) and positively related to sustain talk (ST).

METHOD

• Audio recordings and assessment data were obtained via a data sharing agreement and DSMP with Project DASH (NINR R01NR01332, Mags Feldstein Ewing and Bryan), a study of neurocognitive factors in adolescent decision making and HIV risk avoidance.

• Data included baseline measures of risk behavior and ratings from the Impulsive Sensation Seeking Scale (ImpSS; Zuckerman et al., 1993), a measure of impulsivity and sensation seeking.

• Audio-recorded intervention sessions from 97 justice-involved youth (see Table 1 for demographics and descriptive statistics) were examined as part of an ongoing secondary analysis of adolescent client speech and HIV/STI risk reduction (R03DA035690, PI: Houck).

• Sessions were sequentially coded using the MISC 2.5 (Houck et al., 2010) and a modified version of the CACTI coding application. CT and ST counts were extracted from these data.

• 27.9% of youth reported using alcohol at their most recent sexual encounter and 42.3% reported using cannabis at their most recent sexual encounter, suggesting a pattern of association between substance use and sexual behavior.

INTRODUCTION

• The relationship between client speech and ImpSS ratings was assessed using MANCOVA.
• Effects on categories of client speech were examined post hoc using nonparametric correlations.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean (SD) / N (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>15.9 (1.2)</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>58 (59.8%)</td>
</tr>
<tr>
<td>Female</td>
<td>37 (38.1%)</td>
</tr>
<tr>
<td>Missing</td>
<td>2</td>
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<tr>
<td>Last grade completed</td>
<td>9 (1.2)</td>
</tr>
<tr>
<td>Race/Ethnicity</td>
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</tr>
<tr>
<td>White</td>
<td>20</td>
</tr>
<tr>
<td>African American</td>
<td>11</td>
</tr>
<tr>
<td>Hispanic</td>
<td>69</td>
</tr>
<tr>
<td>Native American</td>
<td>8</td>
</tr>
<tr>
<td>Other</td>
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</tr>
<tr>
<td>Full</td>
<td>15 (15.5%)</td>
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<tr>
<td>Partial</td>
<td>49 (50.5%)</td>
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<tr>
<td>Missing</td>
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<tr>
<td>AUDIT</td>
<td>5.0 (6.3)</td>
</tr>
<tr>
<td>Total</td>
<td>11.4 (4.2)</td>
</tr>
<tr>
<td>Percent condom use</td>
<td>29.6% (43.9)</td>
</tr>
</tbody>
</table>

• Impulsivity and SS were moderately intercorrelated ($r = .43$, $p < .001$), and were each related to the baseline AUDIT ($r = .16$, $p < .05$ and $r = .25$, $p < .01$, respectively).

RESULTS

• Estimates of inter-rater reliability for the CT and ST categories were in the excellent range ($ICC = .90$ and .89, respectively).

• High mean counts of CT ($M = 64.1, SD = 53.2$) and ST ($M = 7.8$, $SD = 1.2$) were detected.

• There was a significant multivariate relationship between impulsivity and sensation seeking (ImpSS) and a linear composite of client change language ($F_{(2,41)} = 3.61, \eta^2_p = .074$, $p < .05$).

• In particular, higher sensation seeking (SS) was significantly associated with less CT ($b = -6.1$, $t = -2.3, p = .023$).

• Post-hoc analysis revealed significant negative correlations between SS and the Reason+ ($r = -.17, p < .025$), Desire+ ($r = -.19, p < .025$), and Removed+ ($r = -.16, p < .05$) subcategories of CT, suggesting a link between higher SS and lower desire, reasons, or enjoyment of safer sex practices.

DISCUSSION

• Higher ratings of sensation-seeking were significantly associated with less adolescent speech favoring change and with higher current health risk.

• In particular, Reasons and Desire to use safer-sex practices were negatively associated with SS, as was as “Removed” change talk, a category that captures youth use of third-party (“my friend”, “they”) speech favoring change (Glynn, 2013).

• Impulsivity and sensation-seeking are typical of adolescents as they transition toward adulthood, and thus such traits should not be thought of as pathological or defective (Giedd, 2012).

• Because an effect was observed for CT but not ST, it may be the case that youth with higher sensation-seeking perceive fewer benefits of change, without actively opposing change.

• A better understanding of the relationship between sensation-seeking and within-session client speech may be important for enhancing the effectiveness of this intervention to reduce adolescent sexual risk.

• These findings are consistent with studies of other adolescent health risk behaviors including smoking and alcohol use.

• Subsequent analysis will address the proposed causal chain for MI (Moyers et al., 2009) in this at-risk adolescent sample.

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REFERENCES


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